

Title (en)

METHOD AND COMPOSITIONS FOR STIMULATING VESICULAR-ARBUSCULAR MYCORRHIZAL FUNGI

Title (de)

VERFAHREN UND ZUSAMMENSETZUNGEN ZUM STIMULIEREN VON VESIKULÄR-ARBUSKULÄREN MYKORRHIZAPILZEN

Title (fr)

PROCEDE ET COMPOSITIONS STIMULANT LES CHAMPIGNONS DE MYCORHIZE VESICULAIRE-ARBUSCULAIRE

Publication

EP 0456808 B1 19971008 (EN)

Application

EP 91901137 A 19901119

Priority

- US 9006714 W 19901119
- US 44483889 A 19891204

Abstract (en)

[origin: US5002603A] A method and compositions for stimulating the growth of vesicular-arbuscular mycorrhizal fungi alone or in the presence of a plant material using isoflavonoid compounds is described. The isoflavonoids are preferably of the formula: <IMAGE> wherein R1, R2 and R3 are selected from the group consisting of hydrogen, hydroxyl and alkoxy, particularly methoxy.

IPC 1-7

A01N 43/16; **A01N 63/04**

IPC 8 full level

A01G 1/04 (2006.01); **A01C 1/06** (2006.01); **A01G 7/00** (2006.01); **A01N 33/06** (2006.01); **A01N 43/16** (2006.01); **A01N 43/40** (2006.01); **A01N 43/50** (2006.01); **A01N 57/00** (2006.01); **A01N 63/30** (2020.01); **C05F 11/08** (2006.01); **C07D 311/22** (2006.01); **C12N 1/14** (2006.01); **C12R 1/645** (2006.01)

CPC (source: EP US)

A01N 43/16 (2013.01 - EP US); **A01N 63/30** (2020.01 - EP US)

Citation (examination)

- JP S6387973 A 19880419 - KYOWA HAKKO KOGYO KK
- PHYTOCHEMISTRY vol. 15, 1976, pages 655-659, H.D. VAN ETTEN
- ANNALS OF BOTANY vol. 50, 1982, pages 1-7, J.C. STEFFENS et al.
- MYCORRHIZAL SYMBIOSIS 1983, pages 1-31, 64-103, 104-116, Academic Press, J.L. HARLEY et al.
- CAN. J. MICROBIOL. vol. 31, 1985, pages 965-972, J.O. SIQUEIRA et al.
- PHYTOCHEMISTRY vol. 25, 1986, pages 979-995, D.A. SMITH et al.
- BIOLOGY AND MOLECULAR BIOLOGY OF PLANT-PATHOGEN INTERACTIONS 1986, pages 29-36, ed. J.A. Bailey, V. GIANINAZZI-PEARSON
- MYCORRHIZAE IN THE NEXT DECADE, May 1987, pages 172-174, C.M. HEPPER
- APPLIED AND ENVIRONMENTAL MICROBIOLOGY vol. 53, 1987, pages 1928-1933, K.S. ELIAS et al.
- PLANT PHYSIOLOGY vol. 84, 1987, pages 1193-1196, Y. KAPULNIK et al.
- CRC Crit. Rev. Biotechn. vol. 5, no. 4, 1987, pages 319-357, P. JEFFRIES
- SCIENCE vol. 242, 1988, pages 346-349, M. JACOBS et al.
- BIOTECNOLOGIA DO SOLO: Fundamentos e Perspectivas, 1988, pages 125-176, J.O. SIQUEIRA
- ANN. REV. PLANT PHYSIOL. PLANT MOL. BIOL. vol. 39, 1988, pages 297-319, B.G. ROLFE et al.
- CAN. J. BAT. vol. 66, 1988, pages 2533-2539, B. MOSSE
- NEW PHYTOL. vol. 108, 1988, pages 211-218, G. BECARD et al.
- NEW PHYTOL. vol. 110, 1988, pages 217-225, M.G. GLENN et al.
- NATO ASI Series, vol. H17, 1988, pp. 219-235, P. BONFANTE-FASOLO
- PLANT, CELL AND ENVIRONMENT vol. 11, 1988, pages 395-401, M.D. TEMPLETON et al.
- MOLECULAR GENETICS OF PLANT-MICROBE INTERACTIONS 1988, ed. R. Palacios et al., pages 73-91, 94-95
- RECENT ADVANCES IN PHYTOCHEMISTRY vol 22, 1988, ed. E.E. Conn, pages 83-103, 113-119, 163-175
- ANN. REV. PLANT PHYSIOL. PLANT MOL. BIOL. vol. 39, 1988, pages 221-244, S.E. SMITH et al.
- NATO ASI Series vol. H17, 1988, ed. S. Scannerini et al., pp. 73-83, 167-205
- THE FLAVONOIDS 1988, ch. 5, ed. J.B. Harborne, P.M. DEWICK, pages 125-209
- NEW PHYTOL. vol. 111, 1989, pages 25-39, A.J.P. BURGGRAAF et al.
- J. CHEM. ECOLOGY vol. 16, 1990, pages 901-909, T.L. WACKER et al.
- PHYSIOLOGICAL PLANT PATHOLOGY vol. 24, 1984, pages 357-364, D. MORANDI et al.
- VA MYCORRHIZA 1984, ed. C.L. Powell et al., CRC Press, FL, US, pages 1-3, 113-130, 187-203, 205-223

Cited by

WO2015028601A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

US 5002603 A 19910326; AT E158920 T1 19971015; AU 639058 B2 19930715; AU 6957891 A 19910626; BR 9007092 A 19911224; CA 2045538 A1 19910605; CA 2045538 C 19981027; CN 1040458 C 19981028; CN 1052329 A 19910619; CN 1077767 C 20020116; CN 1186599 A 19980708; DE 456808 T1 19920521; DE 69031560 D1 19971113; DE 69031560 T2 19980212; DK 0456808 T3 19980720; EP 0456808 A1 19911121; EP 0456808 A4 19921104; EP 0456808 B1 19971008; ES 2042433 T1 19931216; ES 2042433 T3 19971201; GR 3025492 T3 19980227; GR 920300029 T1 19920826; HU 211206 B 19951128; HU 912581 D0 19920228; HU T61430 A 19930128; JP H04504209 A 19920730; JP H0763277 B2 19950712; TW 197936 B 19930111; US 5085682 A 19920204; US 5125955 A 19920630; WO 9107868 A1 19910613

DOCDB simple family (application)

US 44483889 A 19891204; AT 91901137 T 19901119; AU 6957891 A 19901119; BR 9007092 A 19901119; CA 2045538 A 19901119; CN 90109691 A 19901204; CN 97105422 A 19970528; DE 69031560 T 19901119; DE 91901137 T 19901119; DK 91901137 T 19901119;

EP 91901137 A 19901119; ES 91901137 T 19901119; GR 920300029 T 19920826; GR 970403141 T 19971126; HU 258191 A 19901119;
JP 50148391 A 19901119; TW 80100413 A 19910118; US 59096990 A 19901001; US 59142090 A 19901001; US 9006714 W 19901119